

D. Amendment to the Claims

Please cancel claim 8 without prejudice or disclaimer.

Please amend claims 1-3 as follows:

1. (Currently Amended) An organic luminescence device, comprising:

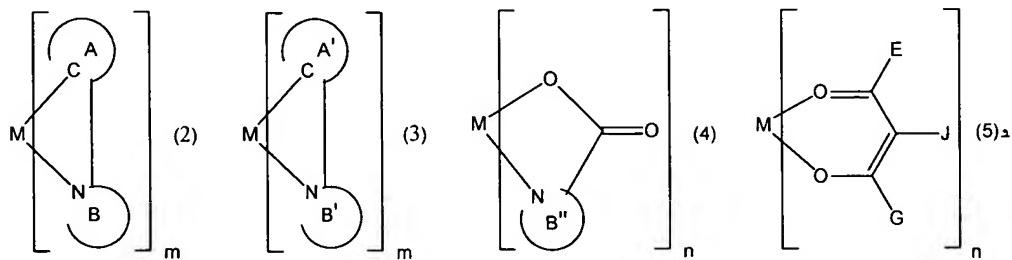
a pair of electrodes each disposed on a substrate, and at least one luminescence layer

comprising an organic compound disposed between the electrodes,[[;]]

wherein the luminescence layer comprises a ~~non-luminescent~~ first organic compound and a phosphorescent second organic compound represented by formula (1) shown below, and the second organic compound is present at a concentration of at least 8 wt. % in the luminescence layer:

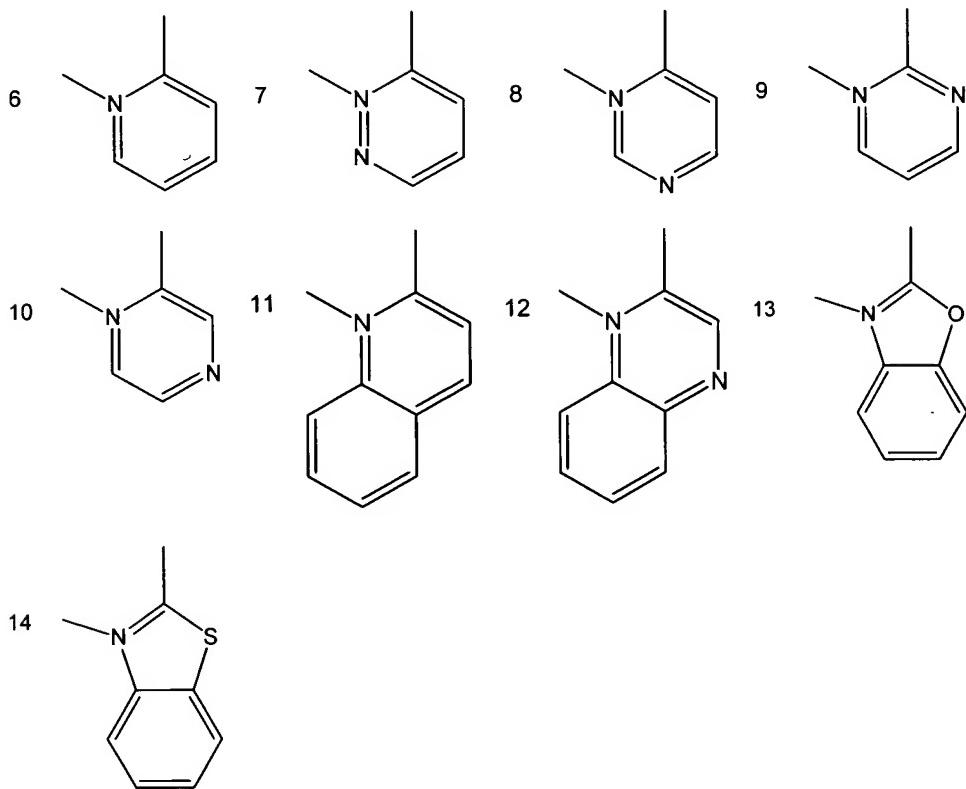


wherein M is a metal atom of Ir, Pt, Rh or Pd; L and L' are mutually different bidentate ligands; m is 1, 2 or 3; n is 0, 1 or 2, with the proviso that m+n is 2 or 3; a partial structure ML_m is represented by formula (2) shown below and a partial structure ML'_n is represented by formula (3), (4) or (5) shown below:



wherein N and C are nitrogen and carbon atoms, respectively; A and A' are each respectively a cyclic group capable of having a substituent and bonded to the metal atom M via the carbon atom; B, B' and B'' are each respectively a cyclic group selected

from formulas represented by a formula of (6) - (14) shown below capable of having a substituent and connected to the metal atom M via the nitrogen atom:



wherein said phosphorescent second organic compound has at least one substituent selected from the group consisting of a) to c):

- a) a trialkylsilyl group in which alkyl groups are independently a linear or branched alkyl group having 1 to 8 carbon atoms.
- b) a linear or branched alkyl group having 2 to 20 carbon atoms, which said alkyl group includes one or non-neighboring two or more methylene groups that are replaced with -O-, -S-, -C(O)-, -C(O)-O-, -O-C(O)-, -CH=CH- or -C≡C-, and

c) an aromatic cyclic group having a substituent selected from the group consisting of a halogen atom, a cyano group, a nitro group, and a linear or branched alkyl group having 1 to 20 carbon atoms, which said alkyl group can include one or non-neighboring two or more methylene groups that can be replaced with -O-, -S-, -C(O)-, -C(O)-O-, -O-C(O)-, -CH=CH- or -C≡C- via an alkyl group spacer, which said spacer alkyl group can include one or non-neighboring two or more methylene groups that can be replaced with -O-, -S-, -C(O)-, -C(O)-O-, -O-C(O)-, -CH=CH- or -C≡C-

wherein said phosphorescent second organic compound optionally has a substituent selected from the group consisting of d) to i):

d) a halogen atom,

e) a cyano group,

f) a nitro group,

g) a trialkylsilyl group in which alkyl groups are independently a linear or branched alkyl group having 1 to 8 carbon atoms,

h) a linear or branched alkyl group having 1 to 20 carbon atoms, which said alkyl group can include one or non-neighboring two or more methylene groups that can be replaced with -O-, -S-, -C(O)-, -C(O)-O-, -O-C(O)-, -CH=CH- or -C≡C-, and

i) an aromatic cyclic group optionally having a substituent selected from the group consisting of a halogen atom, a cyano group, a nitro group, and a linear or branched alkyl group having 1 to 20 carbon atoms, which said alkyl group can include one or non-neighboring two or more methylene groups that can be replaced with -O-, -S-, -C(O)-, -C(O)-O-, -O-C(O)-, -CH=CH- or -C≡C- and said alkyl group can include a hydrogen atom that can be replaced with a fluorine atom,

wherein A and B, and A' and B' are respectively bonded to each other via a covalent bond,

wherein E and G are independently:

- j) a linear or branched alkyl group having 1 to 20 carbon atoms, or
- k) an aromatic cyclic group optionally having a substituent selected from the group consisting of a cyano group, a nitro group, a linear and branched alkyl group having 1 to 20 carbon atoms, which said alkyl group can include one or non-neighboring two or more methylene groups that can be replaced with -O-, -S-, -C(O)-, -C(O)-O-, -O-C(O)-, -CH=CH- or -C≡C-, and

wherein J is selected from the group consisting of:

- l) a hydrogen atom,
- m) a linear or branched alkyl group having 1 to 20 carbon atoms, and
- n) an aromatic cyclic group optionally having a substituent selected from the group consisting of a cyano group, a nitro group, a trialkylsilyl group in which alkyl groups are independently a linear or branched alkyl group having 1 to 8 carbon atoms, a linear or branched alkyl group having 1 to 20 carbon atom, which said alkyl group can include one or non-neighboring two or more methylene groups that can be replaced with -O-, -S-, -C(O)-, -C(O)-O-, -O-C(O)-, -CH=CH- or -C≡C- via an alkyl group spacer, which said spacer alkyl group can include one or non-neighboring two or more methylene groups that can be replaced with -O-, -S-, -C(O)-, -C(O)-O-, -O-C(O)-, -CH=CH- or -C≡C-

{wherein the substituent is selected from a halogen atom, a cyano group, a nitro group, a trialkylsilyl group (of which the alkyl groups are independently a

linear or branched alkyl group having 1 to 8 carbon atoms), a linear or branched alkyl group having 1 to 20 carbon atoms (of which the alkyl group can include one or non-neighboring two or more methylene groups that can be replaced with -O-, -S-, -CO-, -CO-O-, -O-CO-, -CH=CH- or -C=C- and the alkyl group can include a hydrogen atom that can be replaced with a fluorine atom), or an aromatic cyclic group capable of having a substituent (of which the substituent is selected from a halogen atom, a cyano group, a nitro group, a linear or branched alkyl group having 1 to 20 carbon atoms (of which the alkyl group can include one or non-neighboring two or more methylene groups that can be replaced with -O-, -S-, -CO-, -CO-O-, -O-CO-, -CH=CH- or -C=C- and the alkyl group can include a hydrogen atom that can be replaced with a fluorine atom));

— A and B, and A' and B' are respectively bonded to each other via a covalent bond;

— E and G are independently a linear or branched alkyl group having 1 to 20 carbon atoms (of which the alkyl group can include a hydrogen atom that can be optionally replaced with a fluorine atom), or an aromatic cyclic group capable of having a substituent (of which the substituent is selected from a halogen atom, a cyano group, a nitro group, a trialkylsilyl group (of which the alkyl groups are independently a linear or branched alkyl group having 1 to 8 carbon atoms), a linear or branched alkyl group having 1 to 20 carbon atoms (of which the alkyl group can include one or non-neighboring two or more methylene groups that can be replaced with -O-, -S-, -CO-, -CO-O-, -O-CO-, -CH=CH- or -C=C- and the alkyl group can include a hydrogen atom that can be replaced with a fluorine atom)),

~~J is a hydrogen atom, a halogen atom, a linear or branched alkyl group having 1 to 20 carbon atoms (of which the alkyl group can include a hydrogen atom that can be optionally replaced with a fluorine atom), or an aromatic cyclic group capable of having a substituent (of which the substituent is selected from a halogen atom, a cyano group, a nitro group, a trialkylsilyl group (of which the alkyl groups are independently a linear or branched alkyl group having 1 to 8 carbon atoms), or a linear or branched alkyl group having 1 to 20 carbon atoms (of which the alkyl group can include one or non-neighboring two or more methylene groups that can be replaced with -O-, -S-, -CO-, -CO-O-, -O-CO-, -CH=CH- or -C=C- and the alkyl group can include a hydrogen atom that can be replaced with a fluorine atom));~~

~~wherein the compound represented by the formula (1) includes at least one cyclic group having a substituent.~~

2. (Currently Amended) An organic luminescence device according to claim 1, comprising: a pair of electrodes each disposed on a substrate, and at least one luminescence layer comprising an organic compound disposed between the electrodes; wherein the luminescence layer comprises a non-luminescent first organic compound and a phosphorescent second organic compound represented by the above-mentioned formula (1), and the second organic compound is present at a concentration in the luminescence layer that is higher than a concentration at which a [[an]] cyclic group represented by the formula (1), but containing no substituent at least in (i) said any of the cyclic groups A and A' or (ii) said [[the]] cyclic groups B and B', exhibits a maximum luminescence characteristic.

3. (Currently Amended) An organic luminescence device according to claim 1, comprising: a pair of electrodes each disposed on a substrate, and at least one luminescence layer comprising an organic compound disposed between the electrodes; wherein the luminescence layer comprises a non-luminescent first organic compound and a phosphorescent second organic compound represented by the above-mentioned formula (1), and the second organic compound is present at a prescribed concentration of at least 8 wt. % in the luminescence layer providing a maximum luminescence characteristic.

4. (Withdrawn) An organic luminescence device according to claim 1, wherein the partial structure ML'_n in the formula (1) is represented by the formula (3).

5. (Withdrawn) An organic luminescence device according to claim 1, wherein the partial structure ML'_n in the formula (1) is represented by the formula (4).

6. (Withdrawn) An organic luminescence device according to claim 1, wherein the partial structure ML'_n in the formula (1) is represented by the formula (5).

7. (Original) An organic luminescence device according to claim 1, wherein n in the formula (1) is 0.

8. (Cancelled)

9. (Original) An organic luminescence device according to claim 1,
wherein the substituent of the compound of the formula (1) is a trifluoromethyl group.

10. (Original) An organic luminescence device according to claim 1,
wherein the substituent of the compound of the formula (1) is an alkyl group.

11. (Original) An organic luminescence device according to claim 2,
wherein said maximum luminescence characteristic is a maximum luminescence
luminance.

12. (Original) An organic luminescence device according to claim 2,
wherein said maximum luminescence characteristic is a maximum current.

13. (Original) An organic luminescence device according to claim 2,
wherein said maximum luminescence characteristic is an external luminescence efficiency.

14. (Original) An organic luminescence device according to claim 2,
wherein said maximum luminescence characteristic is a ratio of luminescence flux/power
consumption obtained by dividing a luminescence flux by a power consumption.

15. (Original) An organic luminescence device according to claim 1, wherein phosphorescence is emitted from the luminescence layer by applying a voltage between the electrodes.

16. (Original) A picture display apparatus, comprising an organic luminescence device according to claim 1, and a drive circuit for supplying display data.